When elephants fly: The lift-off of emotion research in applied linguistics[1]

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Reading Matthew Prior's title triggered memories of an elephant joke I enjoyed very much as a teenager. I still remember the voice of the friend telling the joke in dialectal Flemish in the Sunday night train from Bruges to Brussels where we were studying:

> A man is throwing powder through an open train window at regular intervals, a puzzled fellow passenger asks him what on earth he is doing. The man replies "keeping the elephants away of course! It's elephant repellent!" The passenger replies, don't be absurd, there are no elephants here. The man replies " exactly! powerful powder!"

Because the "emotion = elephant in the room" metaphor is ubiquitous in Prior's position article, I decided to expand it in my title by combining it with the famous adynaton "When pigs fly", which suggests that something will never happen. Considering the applied linguists' reluctance to engage with emotion a couple of decades ago, the current interest in emotion can only be described as the time of the flying elephants. This image fits nicely in the surrealist Belgian humour my friends and I used ot enjoy so much.

Prior refers to the work of Block (2003) who argued that the field was in the grip of cognitivists until the mid-1990s when the social turn challenged existing orthodoxies. I do not disagree with this but I think that the term "social" might be just a little bit too narrow to describe the shift. I would argue that what the different "turns" had in common was an ontological, epistemological and methodological challenge to the relatively homogeneous dominant perspective. A majority of applied linguists had until then priviledged the view that firstly, "reality is found in a theory that helps to explain behaviour among a large number of people" (Creswell, 2015, p. 16), secondly, that proper research had to be based on etic analyses and interpretations, using the carefully defined and relatively stable concepts from the analytic language of the social sciences for comparative research across languages, situations and cultures (Pike, 1954) and, thirdly, that quantitative methods allowed hypothesis-testing, falsifiability and generalisation, in other words, that conclusions cannot be drawn from a simple observation of a particular phenomenon (Popper, 1959). Reflecting positivist beliefs, researchers in this perspective believed in the impartiality of their investigations of cause–effect relationships between the variables in a world of real objects (Farhady, 2013).

As Prior points out, a rejection of cognitivism emerged in 1990s. Alternative views included the ontological position that "that reality is better determined by different individual perspectives than one general explanation" (Creswell, 2015, p. 16). Emic perspectives were adopted to incorporate participants' perspectives and interpretations of behaviour, events and situations using their own language (Pike, 1954). This approach required qualitative data and different methods to analyse them. As Markee (2013) pointed out, researchers who adopted the emic/qualitative approach did not completely share ontological and epistemological assumptions and used a range of methodologies including case studies, conversation analysis, and (critical) ethnography.

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This evolution in the field of applied linguistics created a propitious climate for research on emotion, which allows a wide variety of approaches. Etic, quantitative emotion research had been around in psychology for many decades. The new emic approach allowed applied linguists to delve into participants' emotions which are "not necessarily open to etic or outside observation" (Pomerantz, 2013, p. 1). I agree with Prior that the terms 'turn' and 'paradigm shift' risk being used a bit too casually and could lead to simplifications of a more complex and messy reality. The emergence of emic approaches caused an epistemological re-balancing of the field that allowed emotion research to blossom but it did not mean an outright rejection of etic research (Dewaele, 2019). For example, Pavlenko (2007) argued that autobiographic narratives should be considered as valid data for applied linguists but they also pleaded for triangulation: "participants' stories are interpretations, and not representations, of reality, and are best used in conjunction with other means of data collection" (Pavlenko, 2007, p. 324). In that Pavlenko agreed with Wierzbicka' preface (2004) to a special issue we co-edited: "It seems clear that if we want to tap that knowledge of bilingual persons a wide variety of approaches must be allowed and attempted" (p. 104).

Prior also wonders whether the current interest in emotion represents a proper turn or merely an "affective bandwagon" before adding that emotion seems to have become accepted as a serious topic of investigation rather than a "curious' epiphenomenon". One very crude way to answer this question is through the Google English books Ngram viewer. A search of the occurrence of the word "emotion" from the 1960 to the most recent 2008 data shows an elongated U-shaped curve, starting at .0018%, dipping to .0014% in 1979 and raising to .0023 in 2008, with a steeper incline since 2000. Doing a keyword search for "emotion" in the journal *Applied Linguistics* revealed 163 hits. Only one article mentioned "emotion" before 2002. A total of 120 articles containing the word were published since 2010. Repeating the same search with *The Modern Language Journal* revealed 880 hits. A total of 700 articles or reviews contained the word "emotion" between 1917 and 2009, which is an average of 7.6 per year. Since 2010 another 180 articles contained the word "emotion", which is an average of 22.5 per year. In other words, the frequency of the word "emotion" has trebled in *MLJ* in the past 8 years. Considering the three sources of evidence, I would argue that we are witnessing maybe not a true turn but rather a sharp increase in interest in emotion. It is definitely more than an "affective bandwagon". Another conclusion that can be drawn from this is that interest and research on emotion has been around for a long time, as Prior points out, in a variety of ontological, epistemological and methodological approaches, and that it waited for favourable circumstances to bloom.

Re-reading the previous paragraphs, I realise that these comments must come across as pretty dry and disembodied to students and young researchers. I do not wish to perpuate the myth that "Big Ideas" descend from heaven and that researchers are mere conduits. Another false impression that I might create is that all the researchers cited so far, including Prior and myself, peer over the parapet of our ivory towers to throw some new arguments and evidence at the opposition and then retreat to the safety of our chair. While there is something in that, the reality is very different and much messier than one might expect. In other words, there is no teleology. We were not predestined to do research on emotion. We just stumbled across it in journals and at conferences, and it caught our attention. Let me illustrate this with my venture into the area of emotion. In 1999 I missed Aneta Pavlenko's presentation that mentioned the word "emotion" in the abstract at the Second International Symposium on Bilingualism organised by Li Wei at the University of Newcastle. Luckily the progamme contained her email address so I contacted her later apologising for having missed her paper at the conference. She answered that she had

noticed my talk but had also been unable to attend. I explained that I was interested in finding out why my most proficient second language learners of French at the Free university Brussels used more vernacular vocabulary and more emotion words, and I wondered whether she had noticed anything similar in her corpus of English-Russian interlanguage. We quickly agreed to work on a joint article that was eventually published in *Language Learning* (Dewaele & Pavlenko, 2002). As we grew more critical of the limitations of the study, we realised that we needed a different approach to investigate a wider range of issues around emotion and multilingualism. With the help of a colleague who was a computer expert, we set up one of the first online questionnaires in applied linguistics. It took a huge amount of effort and time but it paid off. Our *Bilingualism and Emotion Questionnaire* was put on a dedicated Birkbeck webpage and advertised through several listservs as well as through thousands of targeted emails I sent to colleagues and their students in universities around the world. We included appeals in teachers' and translators' magazines. It remained online for two years (Dewaele & Pavlenko, 2001–2003) and it allowed us to collect quantitative and qualitative data from 1,579 multilinguals on their language preferences for emotional speech and on their perceptions of their languages. The analyses revealed that our participants typically prefered their first language(s) to express their emotions (including swearing and declarations of love) and that they felt that languages acquired later in life had less emotional resonance (Dewaele, 2010; Pavlenko, 2005).

Aneta and I agreed that it would be good to organise international events on emotions that would bring together colleagues from various disciplines. We organised a first panel in 2001 at the International Symposium on Bilingualism and more panels in 2002 and 2003 at major conferences. Contributors to the panels, and the special issues and edited books that grew out of them were applied linguists, linguists, cognitive psychologists, psycholinguists, literature specialists… Crucially, they were a bunch of extraordinary, openminded people with a common interest in the mysteries of language and emotion. Many also became good friends with whom it was great fun talking about non-academic issues, and test ideas about new research designs, about new ways forward.

Dessimination can have unexpected consequences. My 2010 book *Emotions in multiple languages* landed in the hands of Beverley Costa, a psychotherapist who was running a multi-ethnic counselling service. She pointed to the problem of monolingual bias in psychotherapy. We started doing research on multilingualism in that context collecting data from therapists and clients. We have since been actively involved in raising awareness about multilingualism among therapists (Costa & Dewaele, 2018).

Prior also mentioned my work with Peter MacIntyre on foreign classroom emotions, where we were inspired by Positive Psychology to take a more holistic look at how learners feel during classes (Dewaele & MacIntyre, 2019). In previous publications (Dewaele, 2005, 2011, 2015), I had expressed my regrets that the dry cognitivist mindset was still dominant in foreign language curricula, and that is was crucial to include the topic of emotions, in a positive emotional environment. I sincerely hope that our work will lead to shift in educational practices.

To conclude, I think that we can say that the elephant is no longer invisible and, in fact, it is taking off as we speak.

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Sources of Definitional Problems in the Study of Emotion: Nonphysical Aspects of Mind

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In his rich overview of the study of emotion, Matthew Prior raises the important definitional issue. He cites Solomon (2008) who notes that a definition of emotion "is always tentative and appropriate only within the limited context and certain models of culture and personal character" (p. 6). He also notes the definitional issue when considering pedagogical perspectives on emotion. "Here, too, precise definitions are elusive because affective scholarship resists dichotomies and rejects stability while also embracing complexity and dynamism" (p. 10). In this commentary, I suggest a source of the definitional difficulty is that "emotion" is a nonphysical/nonmaterial concept that gets its meaning, not from reference to something physical in the world, but rather from its reference to other words such as synonyms and words in definitions.

Logan (2007) makes a distinction between percepts and concepts. The former are what humans can perceive through their senses (sight, hearing, smell, and touch). These senses allow us to perceive (i.e., to construct percepts of the physical world), and word-percept relationships allow us to refer to physical entities. Logan suggests that at some point in evolution, humans became capable of creating concepts. At that point, by using language to produce words that get their meaning from other words, physical human brains became capable of creating non-physical entities. They were able to conceptualize relationships in which words do not simply make reference to physical things in the world, but rather they can also convey meaning through reference to other words. This ability allows the generation of ideas, ideologies, idealizations, concepts, conceptualizations, categories, and unreal worlds (Schumann, 2018).

The world is composed of at least three spheres: the physiosphere consisting of inorganic physical entities (water, earth, rocks etc.), essentially nonlife; the biosphere consisting of the world of plants and animals (life); and the symbolosphere which is the nonphysical world of symbolic (word-word) relationships (Schumann, 2018). These relationships are concepts such as truth, democracy, love, duty, ambition, zero, metaphysics, emotion, and motivation. One cannot point to these entities; one can only understand them in relation to other words with similar meanings or verbal definitions.

Now we have to ask whether the notion that the symbolosphere is nonphysical and exists with the physical brain constitutes dualism, i.e., making a distinction between mind and body. In some circles, dualism is a term of derision. However, I'm not troubled by the idea (see Logan & Schumann, 2005) because you cannot have a nonmaterial symbolosphere without a physical biosphere and physical brain. Symbolic reference (word-word reference) comes out of the physical activity among physical brains.

It is interesting that human brains, as physical organs, can produce and process nonphysical entities. A good example is the concept, zero (Deacon, 2013, Logan, 2017, Schumann, 2018). Its meaning, "nothing", refers to a nonphysical entity. That entity can be physicalized in two ways. The first is that it is generated and processed by a physical brain. The second is that the entity is physicalized by converting it into a material artifact--the numeral "0 fluid", or the spoken word "zero", or the written word "zero". The spoken "0" is material in the sense that it is carried on a sound wave. However, the *concept* of zero remains nonmaterial, nonphysical.

Another entity that is nonphysical is a unicorn. The unicorn is nonphysical because no such thing exists, but it can be physicalized by a drawing or a statue of a horse with a single horn in the middle of its forehead. All of the gods of the Greek pantheon are nonphysical because they don't exist. Indeed, for atheists, God is nonmaterial because they believe that there is no such

thing. And even among believers, God is a nonphysical spirit although he/she may be depicted as a light shining down from the heavens (Schumann, 2018).

Probably the clearest case for the non-physicality of meanings comes from abstract words. For example, the concept "duty" is not material/physical. To understand the meaning, one may need many examples in many contexts or a definition which would be in words, but these words are not "duty"; they are a set of signs that are necessary to explain the non-physical symbolic concept. The same is true for abstract words such as "dignity," "interest", "silence," "freedom" (Schumann, 2018).

I would suggest that recent thinking about emotion places that concept in the nonphysical/nonmaterial world. Barrett (2006) addresses the question of whether any emotions are natural kinds. Natural kinds are observer independent entities; they exist whether they are recognized or not. "A natural kind is a non-arbitrary grouping of instances that occur in the world. This grouping, or category, is given by nature and is discovered not created by the human mind" (p. 29). Emotions, according to Barrett (2009, 2012, 2015), are conceptualizations made by humans based on their observation of physiological changes in themselves and others. These conceptualizations are then categorized and labeled with emotion terms. Thus, they are created by humans and only exist if humans recognize them and label them with a cultural term taken from their language.

Lisa Feldman Barrett (2006, 2009, 2012, 2015, Schumann, 2018) and colleagues have developed a perspective on emotion called Psychological Construction Theory (PCT). They consider emotions to be psychological constructions, not biological entities. They argue that the brain has several domain general core systems for functions such as memory, affect, attention, categorization, and language. They consider these core systems to be the basic ingredients of human emotions. From the perspective of PCT, emotions do not have dedicated neural regions or networks. They are not observer independent entities such as things in the physical and biological worlds (e.g., trees, water, rocks, soil, plants, animals, humans). Emotions exist only when observed and thus are observer dependent. Our emotions are not the changes that take place in the body (in the autonomic nervous system, endocrine system, musculoskeletal system, etc.) when an emotion is experienced. Different emotions may have the same bodily changes, and in different individuals, the same emotion may be associated with different bodily systems. In addition, there is no one-to-one relationship between an emotion and behavior. Every emotion category (happiness, sadness, fear, disgust, etc.) is composed of instances that vary in their physical characteristics. The emotion we call "fear" may be experienced as worry, concern, panic, distress, etc. Emotion category labels are generated by society/culture, and children are socialized to them through the language that conspecifics use to identify emotion categories in themselves and in others. According to Barrett, an emotion is highly dependent on context such that emotions are category labels for particular states of the body in relation to the current states of the world that the individual is experiencing.

From the perspective of this commentary and Schumann (2018), we might consider psychological constructions to be one type of symbolic construction. An emotional category then would be a nonmaterial symbolic element of meaning which is used to associate a particular body state with the current context/situation in one's physical and symbolic world. To explain human emotions then, we have to understand how the human minds (i.e., brains, bodies, and the physical and symbolic worlds) create nonphysical ontologically subjective categories. This is extremely important. If the physical human brain can create nonphysical entities (symbolic constructions) then the mind is, in part, nonmaterial, whereas the brain is entirely physical.

Prior also points out (p. tbd) That emotion has to be considered within applied linguistics in relation to the considerable work that is been done since the 1950s on motivation and SLA (see Schumann, 2017). Indeed, McIntyre et al. (2017) have conducted research with second-language learners and found a high correlation between probes of emotion and probes of motivation. I would consider motivations to be conceptual acts and symbolic constructions. Whereas emotion categories are generated by society/culture and are acquired through socialization, enculturation and education, motivational categories are developed among researchers interested in motivation. Children are not socialized to recognize various motivations (instrumental, integrative, etc.) (Schumann, 2017).

Why might it be important to recognize the difference between the symbolosphere, the biosphere and the physiosphere (see also Schumann, 2018)? I would suspect this is important because in fields that are based on symbolic relationships (such as anthropology, sociology, psychology), it is often difficult to achieve final irrefutable answers. It is difficult to establish ultimate truth. What characterizes these fields are interpretations and imputations, but there is no real teleology except in the minds and intentions of the researchers/scholars (Schumann, 2017). Then if we pursue these fields in the same way as the physical and biological sciences, we may be operating under an inappropriate epistemology.

There is a big effort to encourage studies in STEM (science, technology, engineering, mathematics) areas. These fields deal largely with the physical world. Should we dismiss or diminish support for the arts, humanities, and the social sciences because they are inherently uncertain and require interpretation to achieve understanding? The humanities and the social sciences have also yearned for certainty which was originally supplied by religion and then by the scientific method (with religion never disappearing). Why am I amazed every year at graduation at the numbers of degrees awarded to students from the philosophy and classics departments? Why are Masters of Fine Arts programs popular? Why do the humanities continue to search for and find understandings that are achieved through art, literature, philosophy, anthropology, sociology, and psychology. If we were to recognize the symbolosphere as a separate domain of human life and not impose scientific epistemologies on it, we could appreciate the contribution of these fields to genuine knowledge.

Our minds were extended beyond the physical and biological worlds when we became a symbolic species. This was recognized before the scientific revolution, but afterwards with the success of science (and more especially the success of engineering), this fact was ignored, and it was assumed that with the right kind of rigor we could achieve the same kind of success.

The notion of "mind" is also a nonphysical concept. One can point to one's brain, body, and current environment, all of which are now considered to be parts of the mind, but one cannot point to the mind as a unified physical entity. It is highly distributed among the non-physical symbolosphere and the physical biosphere and physiosphere. Therefore, when applied linguists are studying the role of emotion to second-language acquisition and use, they are studying an extremely important part of the mind. No field owns the mind – not philosophy, not psychology, not neuroscience, not linguistics. Thus, the mind is an area to which applied linguists can contribute if they are willing to think beyond the domains of language learning and teaching.

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Embracing an integrative approach towards emotion in language teaching and learning

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Prior's article reflects on how emotion intersects with language teaching and learning. He uses *emotion* and *affect* interchangeably in his article. From philosophical, epistemological and methodological angles, he applauds the scholarly attention on emotion but also questions the "casual use of such labels as 'turn' and 'paradigm shift' as well as the often self-congratulatory attitude toward this progress" (p. xx). In his mind, emotion has always been visible in L2 research and should be revisited, rather than ignored to drive current research forward in a positive direction.

One of his arguments is that exiting pedagogical scholarship which considers the affective domain is largely focused on students' emotions. Prior joins Benesch (2012, 2017) and other scholars (i.e., Martinez Agudo, 2018; Miller and Gkonou, 2018) with a call for more research on teachers' emotions, as he aptly states, "Studying the realities surrounding language teachers' emotion labor shows how their professional beliefs, practices, and experiences come to be shaped and challenged, and thus has important implications for training teachers as well as transforming teaching, learning, and the field" (p., xx). As a language teacher and teacher educator myself, I support the light shed on teachers and teacher training. I see two potential areas for more research: (a) teachers' emotion and teaching effectiveness, and (b). the role of

teachers' emotion in teacher training. I think that teachers play as much of a role in the emotional temperature of a classroom as students do.

As Schutz (2014) stated, "for teachers, the classroom context involves both the extreme happiness and joy from a lesson that goes as planned to the intense frustration of working with a challenging student" (p. 1). As such, a growing literature highlights the importance of examining affective underpinnings that influence teachers' practice (i.e. Hargreaves, 1998; Frenzel, 2014). From teachers' personal practical knowledge (PPK) (Glombek, 1998) to teacher cognition (Borg, 2003), scholars recognize a significant relationship between teachers' emotion and decision-making in class. Jones and colleagues also advocate to develop teachers' social and emotional competencies as they "influence everything from teacher-student relationships to classroom management to effective instruction to teacher burnout" (Jones et al., 2013, p. 62). Teachers' emotion is a fount of knowledge to help make sense of teachers' classroom strategies, their emotional bonds with students (Day & Leitch, 2001), students' emotional experiences (Becker, Goetz, Morger, & Ranellucci, 2014,) learning outcomes (Frenzel, Goetz, Stephens, & Jacob, 2009)**;** thus, echoing Prior's call, teacher emotions should not only be studied, but also studied in relation to contextual factors around teachers.

Teacher training is one external contextual factor that interacts with teachers' emotions. Teacher training/education is widely considered as a promising way to enhance teachers' content and pedagogical knowledge. Many studies examine if teacher training affects outcomes for teachers and students (Garet, Porter, Desimone, Birman, & Yoon, 2001) and if teachers' participation in training associates with student achievement (e.g., Lindvall, 2017; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). Researchers desire to uncover the causality between PD and effectiveness in teaching and learning, but during the process, teachers' emotional experiences are normally neglected. To address this issue, in their study, Gaines and colleagues (2018) interviewed teacher participants three times during PD to examine the role of emotions. Results revealed that emotions came from individual assessment of situational antecedents and that emotions during PD impacted outcomes in learning environment. Additionally, research showed that teachers' emotional experiences in a training context may affect their outlook on their training, and in turn alter their future motivation and behavior (Goetz & Bieg, 2016; Pekrun, 2006).

When teacher participants are from varied cultural and language background, the situation may become more complicated as their emotional experience intermingles with a shifting cultural lens. As a Chinese language teacher educator, I have observed a mix of emotions in teachers towards culture teaching, for example, which penetrated through their professional and personal life. Some teachers grapple with varied cultural and societal expectations of teachers between the US and China; some are in denial of cultural variations and feel offended when challenged in discussion; some feel incompetent and unconfident when teaching topics related to culture. Emotion becomes even more thorny when teachers drift between cultural domains, which may affect their teaching performance as well as cultural adjustment as an individual. For example, in Wang's (2009) seminal piece on preparing Chinese language teachers, she highlighted a single most challenging factor for new immigrants and guest teachers being a lack of understanding of the values and mindset of the local community coupled with prior stereotypes. When these Chinese teachers receive teacher training in the US educational context where they are encouraged and challenged to embed critical thinking in teaching, their cultural background dominated by harmony and respect of authority can become emotional hindrance for them to problematize their own culture. The process of striking a

balance between presenting the glorious side of the culture and demonstrating a critical view on their own culture sometimes causes distress to teachers. This process involves teacher participants' feeling they are betraying their country, and how to embrace their fluid identities as a teacher and as a cultural being. There are tremendous insights to be gained from studying international teachers' emotions, and the existing research is insufficient.

In response to this need, Ennser-Kananen and Wang (2016) unfolded an in-depth look at Chinese teacher participants' complex identities during a summer teacher training. Findings showed that participants felt unsafe, uncertain, and that they did not belong. Researchers suggested a "bidirectional and dynamic relationship between teachers' cultural identity work and their pedagogical learning" (p. 625). My current research in a similar program discovers related findings as their study, where I identified rich feelings expressed through metaphors in teacher participants' final reflection. For instance, a teacher participant described her emotional ride in the teacher training metaphorically as driving on the US Route 66 highway from Chicago to California. Along the drive, she initially felt anxious about the uncertainty on the road (the upcoming content in the training), then felt excited by the breathtaking views (new knowledge and stimulating discussion), and sometimes felt frustrated by bad traffic (challenging topics and inability to understand), and felt accomplished at arrival (developed knowledge and expanded view of teaching). My findings mirror other scholars who reveal that teachers use metaphors to "share the particularities of their experiences" (Bateson & Kassarjian, 1994), and make sense of their lived experiences (Craig, 2018). Unfortunately, research in this area is rare despite the extraordinary growth in Chinese teaching and learning. *How does teacher training take into account participants' affective factors (beliefs, feelings, identity)?* And *What are participants' emotional experiences like?* are two research topics that intertwine with my own dilemmas as a teacher educator of Chinese teachers from the Chinese-speaking world as well as teachers who have learned Chinese as an additional language.

Another major insight in Prior's article is, regardless of whether the focus be teachers or learners, how to view their emotions through an integrative and balanced lens. Having noticed that a "wearing sense of pessimism often permeates much discussion and research around emotion" (p. xx), Prior advocates for a "focus on context and a willingness to simultaneously embrace 'wholeness' and 'fragmentation', 'acceptance' and 'struggle', 'joy' and 'pain'". A holistic and malleable view of emotion is necessary because human beings' emotions are contextualized and relational. I suggest researchers deliberate three aspects in studying emotion around language learning and teaching:

The first, and a starting point, is to consider emotions as contextualized, culturally structured and changeable. Studying learners' and teachers' emotions needs to consider place, time and accessibility to their home and target cultural beliefs. Ross and colleagues (2002) studied Canadian bicultural individuals' feelings of self, and results suggested that if these individuals "have internalized contrasting cultural knowledge structures, their feelings and judgments should vary depending on the relative accessibility of the different cultural beliefs" (p. 1041). Admittedly, this study was not centered on language learning, but it serves as a reminder to us that feelings could vary on accessibility to different cultural beliefs. For example, if researchers study learners' language learning during study abroad, the extent of students' exposure to the target culture has the potential to affect their emotions. In such cases, learners' language learning curve may intersect with their cultural adjustment curve to evoke more complex dimensions of emotions. If researchers continue to use "reductionist binaries" to

characterize learners' emotions as *good* or *bad*, it may risk misrepresenting or oversimplifying the picture.

Secondly, broadening scholarly understanding of emotions requires both breadth (relating to contexts, cultures) and depth. Longitudinal studies could offer a nuanced and in-depth account of learners' emotions in language learning. Oga-Baldwin and colleagues (2017) conducted a longitudinal study on 515 Japanese elementary students' motivation in learning English. What distinguishes this study is its centering of emotional engagement on teachers, the environment and the class design. The authors examined students' emotional needs to connect with others (Baumeister & Leary, 1995), to feel competent to influence the environment in a meaningful way (White, 1959), and to recognize the causal relationship between personality and behavior (deCharms, 1968). They also painted motivation in a positive way to seek answers to what teachers and contextual factor could contribute to a sustainable motivating learning environment. What the authors did was, in Prior's words, to "approach" and to "reacquaint" themselves with existing multidisciplinary discussion around emotion so as to develop a more thorough and thoughtful study in L2 context. Similar studies that view emotions in a fluid and inclusive lens exist (see Jang et al., 2012; Carreira, Ozaki, & Maeda, 2013; Butler, 2015, Kim & Seo, 2012), but do not specifically focus on language learning, so a plea for more studies is conspicuous.

Thirdly, in response to Prior's argument that "*thinking* or *talking* about emotions isn't the same as *having* them" (p. xx). I see great value in inviting participants to analyze their own emotions. What researchers count as an emotion may mean something different to the person who experiences it. Having researchers label learners' emotions may run the risk of imposing researchers' personal inclination and cultural values on the subjects. Let's use emotions and teacher training mentioned above as an example. In his research on training in intercultural competence for teachers of any subject, Byram (2015) delivered the importance of having teachers involved in the analysis of their own intercultural sensitivity. If language teachers envision their mission to develop students' intercultural communicative competence (ACTFL, 2017; Byram,2015; Swain, Kinnear & Steinman, 2010), it is essential for them to understand such competence is "both a cognitive and an affective matter" (Byram, 2015, p. 47) and the "process may have an impact on their personal stories of teaching and their professional identities" (p. 47). Emotions are such personal matters that having teachers or other research subjects to analyze their own emotions will provide a profound account to enrich and balance with the researchers' interpretation of subjects' emotions.

To develop a true integrative and holistic view of emotions also challenges traditional western academic view of emotions. Prior raises two suggestions for future researchers: he advocates the need to "acknowledge and explore the spiritual dimensions of emotion and language" (p. xx) ; and he eloquently calls for indigenous epistemologies to reassess and revise what emotions mean in western academia. For instance, Prior (2016) found that Southeast Asian refugee ESL learners' emotions are often manifested through somatic symptoms. This extends the scope of emotions by relating them with individual's body and mind; additionally, this example also holds that emotions are a product of individuals' internal reactions and outside contextual factors combined. This approach to "explore zones that blend the inner and the outer space of learning" (Lin, Culham & Oxford, 2016, p. 165) falls under the Confucian spiritual research paradigm.

Confucian spiritual research paradigm is an integrative world view that considers research and the development of knowledge as "an endeavor that is a way of life and part of a moral cultivation and service to the world rather than separate, objective, and independent as is

assumed in Western science" (Lin, Culham & Oxford, 2016, p. 141). This paradigm is relevant and applicable in studying emotions in L2 in a number of ways.

Firstly, this paradigm advocates cultivating spirituality as a way to gain knowledge of "our integrated existence of body, mind and spirit" (Lin, Culham & Oxford, 2016, p. 165). Spirituality is an important part in Asian cultures and as Prior points out, plays an important role in many ethnic minority children's socialization. Isolating emotions from spirituality in L2 research will run the risk of blindfolding researchers from the range of epistemological understandings. In the research of language learners' emotions, it is not enough to limit emotions within feelings (anxious, happy, motivated, etc.), rather it is indispensable to connect with participants' body, mind, heart, soul and spirit. Therefore, when researching L2 learning, researchers are driven to focus on not just academic achievements but also the learners' character building.

Moreover, the Confucian spiritual research paradigm emphasizes harmony, or 中庸 (zhōng yōng, the doctrine of the mean), which means all thoughts and activities adhere to moderation, so that a balance of yin and yang energy helps nurture all forms of life (Lin, Culham & Oxford, 2016). It may help to address Prior's call for a more balanced view to see both positive and negative sides of emotions. Thirdly, the centrality of this paradigm is to gain knowledge through an experiential and holistic lens. Since *talking about* or *thinking about* emotions is not the same as *having* the emotions, this paradigm urges researchers to experience emotions, to develop relatable empathy and to engage variables in the process of attaining knowledge. As mentioned earlier, involving participants in the process to analyze their own emotional experiences will be an example under this tenet.

In addition to promoting a more holistic view in research, Confucian perspectives also have potential for researchers to cultivate their own growth. A spiritual research paradigm suggests researchers "put virtue as the primary guiding value for all research endeavors" (Lin, Culham & Oxford, 2016, p. 151). Researchers with these perspectives see research as a process to build wisdom, harmony and positive impact internally and externally. To achieve this goal, researchers treat participants as equal party in a collaborative relationship with understanding, tolerance and generosity. In this process, researchers not only gain knowledge for the research project but also grow as a person through learning with the participants together.

While many western researchers are used to analyzing participants' learning from an external stance, Confucian perspectives inspire scholars to look inward, by reflecting and documenting their learning process along the journey. This method is not a reflection in retrospect, but reflection-in-action (Schon, 1987; Lin, Culham & Oxford, 2016, p. 151). Such reflections engage researchers to turn inward to recognize their prior knowledge and develop more profound understanding of puzzling phenomenon. It is an opportunity for researchers to be engaged in the moment, develop knowledge from prior experiences, go beyond implicit bias and expand new knowledge. These Confucian perspectives can be beneficial to SLA researchers or researchers of any subject, for that matter.

In sum, Prior's article challenges the alleged "affective turn" in current research by reviewing the depth and breadth of discussion of emotion in SLA research. While embracing the scholarly achievements on this topic, he identifies areas for improvement, including more research on teachers' emotions and building a more integrative view of emotions. He also highlights the great chasm "between Western scientific knowledge and Indigenous or local epistemologies of emotion", and hence advocates for inclusivity of the spiritual dimension of emotion and indigenous epistemologies to revisit what emotions mean. I am not suggesting a

radical paradigm shift; instead, I hope to have made a case for an alternative lens to view leaning, learner (mind, body, soul, spirit) and environment in an interconnected and interdependent way.

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